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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR WEEK ENDING MAY 5, 1928.

HAVRE:

The past week was favorable for farming operations in that there was no interference due to precipitation or cold weather. The first three days were windy and temperatures throughout the week were just a little low for rapid germination. Grains seeded the 20th of April or earlier, however, are through the ground. Seeding throughout the country is progressing very rapidly and a few farmers have completed their seeding of spring wheat.

Wind movement the last of last week and the first of this week caused some movement of soil where it is of light character throughout the county. There was very little injury from soil blowing on the station, however.

Winter grains are up to excellent stands between here and Great Falls except for an occasional field that shows winter injury. Growth is unusually well advanced for this season.

Work on the station is progressing very well. Oat and barley varieties were seeded as well as other miscellaneous tests with varieties. Forage rotations and sugar beet rotations were seeded. The second date of seeding oats, millet, and wheat was made and the first date is up nicely. The first date of seeding for corn and sweet clover was also made. Some reseeding tests were put in on native sod. Some plowing for fallow was also started.

Commercial seeding on the station is progressing very satisfactorily. We have about 20 acres of irrigated barley yet to seed.

There are indications that there will be quite a lot of winter killing in the box elders in the shelter belt. This may in part be due to injury from the canker worms last summer as practically the entire shelter belt was defoliated in June. There is some winter killing in the small apple trees but most of the plum and cherries seem to have withstood the winter in good shape.

JUDITH BASIN:

Strong winds during the first four days of the week caused some soil blowing on fields that had been disked and over harrowed in this section. The blowing caused practically no damage as it occurred largely on fields that had not been seeded. The wind, together with the lack of precipitation, has dried the soil rapidly. The temperature dropped below freezing three nights with a minimum of 18 on the 3rd. No damage has been noted from this unseasonably cool weather.

Judith Basin, continued:

Winter wheat conditions have improved but in the west and northern parts of the Basin some fields on poor methods have been reseeded. The stand on other fields are spotted, due largely to exposed areas as a result of snow drifting or occasionally low areas that were smothered out by standing water. Some of the methods and varietal tests on the station are also in poor condition.

Grass lands in the Basin have improved and pasturing is just starting. All forage crops on the station have made some growth although the weather has been too cool for the most favorable growth.

Farmers in the Basin are busy with spring seeding and a good area of the wheat seeding is completed. Large scale equipment is making it possible for more timeliness in performing the field work.

Seeding of all crops except corn is completed on the rotations. Varieties and up-to-date methods are also completed. Most forage crops and the sweet clover on the pasture experiments are seeded. Seeding of station foundation stocks of small grains is also completed.

Visitors included Messrs. S. Lockwood, of the U. S. Biological Survey Dept., E. W. Hall, of the C. M. & St. P. Railroad, and County Agricultural Agents from the Basin Counties.
Maximum temperature 68, minimum 18; precipitation, 0.

HUNTLEY:

Field work has been possible every day of the past week with the result that the preparation of ground for corn and beans is well under way. In addition, all roads have been lined out and are being duckfooted today, May 5.

Crops have made a fair growth but would be greatly benefited by a rain. A second growth of weeds has sprung up in many plats of spring sown grain and, although the grain is at present considerably ahead of the weeds, it will require almost ideal growing conditions to keep it so.

In the pasture experiments, alfalfa is somewhat more advanced than brome grass this season. This is contrary to the usual order. Winter rye in the pastured rotation has made a much more vigorous growth than rye in the duplicate unpastured rotation. Ordinarily no difference is apparent in these plats at this date. Another thing that has attracted attention in these experiments this spring is the marked difference in the condition of the soil in the pastured and unpastured plats. Without

Huntley, continued:

exception, the former have been rather wet and sticky and have presented all the characteristics of puddled land when worked, whereas the unpastured plats have been very friable and good seed beds have been obtained with ease.

Maximum temperature 75, minimum 24; precipitation, .07 inch.

SHERIDAN:

Weather continued favorable for field work throughout the week. Temperatures were considerably lower than the preceding week, and there was considerable cloudiness and wind, but only a trace of precipitation. Wheat, barley, and oats in the rotations and the wheat varieties emerged during the week. Perennial forage crops, sweet clover, some of the grass for the pasture work, field peas, barley for feed, and some other miscellaneous seedings were seeded during the week. Plowing for corn in the rotations was started yesterday, May 4.

Rain would be of great benefit to grass now. The surface of cultivated ground also is getting quite dry, although there is a good supply of moisture beneath the surface.

Maximum temperature 78, minimum 26; precipitation, Trace.

DICKINSON:

Cool weather continued until near the end of the week when higher temperatures caused more rapid growth of all plants.

Grains seeded from April 5 to 20 are all emerging at about the same time with good stands. No damage is evident from the low temperatures during April.

Forage crops are greening up in good shape. Alfalfa and sweet clover now have shoots two to three inches above ground and will furnish the first grazing during the coming week. The cultivated grasses are much farther along. Crested wheat grass in rows is now 8-10 inches high while comparable seedings of brome and slender wheat grass are only 6-7 inches. Broadcast seedings have less growth but the same relation exists between the species.

Wheat seeding on farms was nearly all completed by May 1, and most of the oats and barley is now finished.

Director P. F. Trowbridge visited the station on April 28. County Agents J. Clayton Russell, of Beach, and Ray Harding, of Hettinger, were visitors during the week.

Maximum temperature 80, minimum 32; precipitation, .34 inch.

MANDAN:

Agronomy

Weather conditions were favorable to moderate growth and a maximum of field work. Fewer weeds seem to have started than has been usual in the past. Subnormal temperatures in April no doubt had something to do with this condition.

Wheat seeded April 14 in the rotation experiment emerged May 2 and 3. Oats and barley seeded April 24 and April 25, respectively, are showing their first emergence today. Compared with the emergence of the past two years, these crops are probably two or three days later in coming up this year.

Alfalfa, flax and sweet clover were seeded in the forage crop rotations May 3 and 4. Flax was also seeded in the Dry Land rotations. Linota was the flax variety used.

The following root crops were seeded in 3-row plats May 4: Sugar beets, mangels (two varieties) rape, rutabagas, and turnips.
Maximum temperature 76, minimum 31; precipitation, 0.

Horticulture

Planting has been completed in orchards, breeding blocks and nursery. The newly planted trees are now being watered.

The first spray of the season has been applied. Arsenate of lead and lime sulphur were the ingredients used.

Cabbage and lettuce plants have been set out in the gardens. Early planted garden seeds are starting to grow. The first cutting of asparagus was made on May 5.

The season is very backward and buds are just starting to grow.

Shelterbelt

Shipping of shelterbelt trees, delayed owing to the frost in the ground preventing the digging out of the 'heeled-in' stock, has been in progress all the week.

Visitors of the week included Messrs. C. H. Plath, Superintendent of the Hettinger Sub-Station, Ray W. Harding, County Agent, Adams County, N. Dak., and H. J. Siemans, County Agent, McKenzie County, N. Dak.

ARDMORE:

A sudden severe windstorm on the evening of April 28 caused a considerable amount of soil blowing, and resulted in damage to many plats and fields of small grains. Oats appeared to be damaged more than either wheat or barley. A small amount of soil blowing took place after April 28 but little more damage was done. Rain on the morning of May 2 put a stop to the soil blowing, and no soil movement has taken place since the rain. The damaged grain is making a good recovery.

Land preparation for corn was continued during the week, and practically all of the land to be planted to corn is ready to seed. The spring plowed plats in the rotations harrowed down into good condition after the rain. Fall plowed corn stubble is still somewhat cloddy.

The small grains in the rotations are showing normal development. Flax had not started to germinate before the rain, but there is now enough moisture in the surface soil to bring the flax up.

The pigs to be used in the limited ration experiment were weighed three consecutive days, and were put on pasture on May 4. The alfalfa in the hog pasture is about four inches high. There were ten sows and 79 pigs in the lot put on pasture.

The bunk house and machine shed were painted one coat during the week.

Maximum temperature 89, minimum 23; precipitation, .49 inch.

ARCHER:

The storm which started May 1 and continued during May 2 and 3 has greatly hampered field work. However, during the first two days of the week the wheat on the Dry-Land plats was seeded, as was also 17 acres of Smyrna barley in the dairy field. The greater portion of a 34-acre tract was listed to sunflowers. During the storm potatoes were cut, yards cleaned and a seepage tank for the milk house constructed.

Director W. L. Quayle and Prof. H. L. Willis, Landscape Artist of the University of Wyoming, were station visitors April 30.

Maximum temperature 79, minimum 28; precipitation, .45 inch.

AKRON:

A light rain was received near the middle of the week after which the weather has remained cool. The rain was not such as to give real assurance that the very severe fall and early spring drought has been broken. On May 1 preceding the rain the record maximum temperature of 92 was recorded.

Akron, continued:

April passed with a total rainfall of only .17 of an inch. This is the lightest April rainfall within the history of the station. The very severe fall and early spring drought is best illustrated by the rainfall as compared to the 20-year average.

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	Total
20 Year Ave.	1.56	1.08	.57	.75	.36	.47	.85	2.25	7.89
1927-1928	.57	.47	.64	.22	.13	.17	.32	.17	2.69

Winter wheat stands on the station have suffered markedly during the dry April.

On the rotation plats corn land winter wheat stands are not nearly as good as they were April 1. There has also been sharp winter killing on certain of the green manure seeded plats. Stands on the fallow plats have also suffered though to a less extent.

The August 15 seeding on the rate and date winter wheat experiment has burned so badly on both fallow and corn land that recovery is doubtful. The remaining seedings on fallow are very non-uniform in stature except the November 1 seeding, which recently emerged. Aside from the August 15 and September 1 seedings the corn land plats of the rate and date winter wheat experiments are yet too lacking in growth to make an estimate of their yield possible.

The following plats of the winter wheat variety experiment are nicely uniform and growthy. Aside from Blackhull and Superblackhull there was no suffering from lack of moisture and these two varieties were only touched. The corn land plats of the winter wheat experiment are not yet growthy enough to make an estimate of their yield possible.

The best corn land winter wheat on the station is on the rate and spacing corn land where the seeding was done with the furrow drill.

It has been a good winter to test the value of the furrow drill in preventing winter killing. On comparable seedings the furrow seeded plats show no winter killing, while the surface seeded plats show from 20 to 30 per cent winter killing.

The rotation rye plats have burned so badly that it appears doubtful whether they can recover.

There has been heavy winter killing on the two sheep rotation winter wheat fields ranging from 25 to 40 per cent but there promises to be enough wheat evenly distributed to return an average yield under average moisture conditions to harvest time.

Akron, continued:

Plums in the fruit garden are in full heavy bloom. Apples and pears are leafing-out but there is little or no promise of bloom. Chinese Elm and Box Elder are almost in full leaf. Other forest trees are just beginning to show growth activity.

Station work during the week consisted mainly of odd jobs and clean-up jobs.

Maximum temperature 92, minimum 33; precipitation, .47 inch.

NORTH PLATTE:

April closed with a total rainfall of .04 inch. This makes it the driest April on record for 53 years at North Platte. Temperatures averaged low and wind movement high. Spring grains started slowly and winter wheat declined rapidly. There was, however, sufficient moisture in the soil from the rains of early March to prevent complete disaster.

May is beginning with a more favorable outlook. Rains on the 2nd and 3rd totaled 1.25 inches. The maximum temperature reached 96 on the 1st and a minimum of 36 with light frost occurred the second night following. First corn on the station has been planted. It is expected to plant most of the corn next week.

The writer visited the Colby and Hays stations last week. With the exception of a small area near Hays winter wheat was suffering from lack of moisture over the entire area traveled.

COLBY:

Weather conditions were very favorable for crop growth and for furnishing moisture during the week. A twenty-hour rain that furnished a total of 1.36 inches of moisture was the best rain of the season and the best for more than a year. Winter wheat on fallow was, in certain fields, none on the station, beginning to need rain. They are doing fine now. The surface moisture will not last long now as the wheat is about 8 to 10 inches high.

Spring wheat is growing nicely although it does not cover the ground at the present time. Oats and barley appear thicker than they did two weeks ago. Thistles will furnish competition for the thinner rates.

The few listed fields were pulled in during the week. These will now be in excellent condition for the seeding of sorghums.

Colby, continued:

A group of at least 50 actual farmers visited the station on the 1st. A short program for farmers was given in Colby then the meeting adjourned to the station. Much interest was displayed in the work being done. As far as interest is concerned this was one of the best field programs that has been put on here.

BELLE FOURCHE:

The week was ushered in by an extraordinarily severe wind storm which caused extensive soil drifting and did a great deal of damage to crops. The injury to spring grains on the dry land rotations was greatest on the fallow, green manure, and corn stubble plots. The soil on many of these plats was removed to the depth of the drill furrows, exposing the seed and roots, and in some instances the young plants were completely blown out. Despite the unfavorable warm, dry weather which has prevailed throughout the week, most of the spring wheat and barley recovered, but oats failed to survive with satisfactory stands on a number of plats. Considerable damage was also done by soil deposited on plats of winter wheat, winter rye, alfalfa, sweet clover, and bromegrass.

No precipitation has been received in sufficient amounts to be of benefit to crops so far this spring. The precipitation for April was only .35 inch, and the total to date for this year is only 1.37 inches. Soil samples taken during the week show that there is very little available moisture in the first three feet of soil on either spring plowed or fall plowed land. The ground is cracking badly on bromegrass, alfalfa, and sweet clover plats, and these crops will begin to burn if it does not rain within the next few days.

Work in the field has consisted of duckfooting roads to retard soil blowing, removing wind drifted soil from grain stubble plats to be fallowed, or listed for corn or potatoes, seeding alfalfa and flax, and reseeding portions of winter rye and sweet clover green manure plats.

Maximum temperature 80, minimum 31; precipitation, 0.

HAYS:

Generally the weather has been warm, the temperature ranging from 38 to 88 degrees during the week. The first two or three days were windy as well as warm, and the winter wheat begins to wilt considerably, especially on the plats in which there was little stored moisture.

Hays, continued:

The short dry spell was broken by a good rain which occurred on the 4th and 5th. This will stimulate plenty of growth. The wheat on fallow is about 18 inches high and very heavy in growth, though not as heavy as fallow sometimes makes. The wheat is about 12 inches on all early fall worked ground like plowing, listing, double listing, chiseling, etc. On early disked ground it is a little shorter and on late disking it is only about four to six inches. As a whole, however, the wheat prospects are very fine. The chances are good for 20 bushel yields to be common and with average conditions from now to harvest there should be some 30 bushel wheat. On late prepared ground, the yields will be less. Spring small grains are looking very good.

Tillage work for weed killing and seedbed preparation for kafir and other sorghums are progressing about normally. The soil is in fine condition,- it is an ideal spring thus far.

The Annual Round-Up was held on the station grounds April 28. This was preceded as usual by the boys' and girls' grain and livestock judging contest on the 27th. The attendance was very good both days. The estimated number of visitors was placed at about 1500. The interest seemed unusually good.

GARDEN CITY:

Wednesday night and Thursday morning a rain was received which measured 2.53 inches. The early part of the rain fell rapidly, but there was a comparatively small amount of runoff from the plats.

Winter wheat on ground cropped last season was beginning to roll during the day before the rain was received. That crop is about eight inches tall at the present time.

All spring plowing was completed Wednesday afternoon and most of the plats on the project were in good condition to take moisture.
Maximum temperature 90, minimum 38; precipitation, 2.53 inches.

DALHART:

Climatic and field conditions are very favorable at this writing. Following a severe wind storm this week a good rain was recorded netting 1.97 inches. This was followed by a small rain of .11 inch. The two rains were slow and of long duration, so that there was no runoff in the fields. Everything is responding rapidly to this timely moisture.

Dalhart, continued:

All the fields on the station were plowed before this rain and were in excellent condition to receive it. The first date of seeding of cotton varieties was made on May 1. The rye, which was planted in the vineyard last fall for windbreak protection, was plowed under this week. It had attained a height of about 8 inches at the time of plowing under. The station roadways are in process of grading since the rains in order to put them in good shape. The grader was used before the rain to smooth the roadways between plats that had accumulated a good deal of dirt which dropped off the plow in crossing. The planting seed of sorghum varieties was treated with copper carbonate during the time which could not be spent in the field this week. Everything is in readiness for final seed-bed preparation and planting of corn as soon as the fields are sufficiently dried to permit planting.

The small grains are responding to the recent rain and prospects are quite favorable for a fair to good yield. Up until this rain was recorded, we had received less rainfall since January 1 than was recorded for the same period last year. In spite of this deficiency the fields were all in better condition than last year. The distribution was a little better which accounted for better moisture conditions.

Maximum temperature 91, minimum 38; precipitation, 2.09 inches.

TUCUMCARI:

Rain totaling 1.38 inches May 2 and 3, followed by cloudy, cool weather, delayed field work a good portion of the week. During this period the rabbit-proof fence around wheat and rye plats was taken down and plats trimmed, tree rows were hoed, feed ground, and yucca grubbed from roadways and fence lines.

A small amount of early cooperative planting is being done today, although the ground is cold and germination will doubtless be slow and uneven. Preparation of land for planting is progressing rapidly and the early crops of weeds should be eliminated before planting is done, middle to late May.

Grapes are leafing rapidly and many are showing buds. A few vacancies exist, although all dead plants of last fall were replaced this spring. Several peach trees promise a very light crop, while ,although apples and cherries bloomed heavily, indications now point to an average light yield. The majority of March planted trees have started early and sturdy growth and ever greens planted two years ago are at last making appreciable headway.

Tucumcari, continued:

Wheat prospects on the plains south of Tucumcari range from above normal to a total failure, since precipitation of the past six months has been very local. While abandonment will be very high, some neighborhoods promise much better than average yields. Sale of milo has been very heavy this spring, while the demand for kafir seed has been low. Much inquiry has been received regarding Straight Neck milo and Dwarf hegari. Cowpeas are at last being grown to some extent, a local dairyman intending to plant 80 acres, while several others have stated they would plant a light acreage.

As a result of recent visits to the station by staff members of an El Paso and a Roswell paper very extensive write-ups of the station have appeared in the papers of these two cities. These visits being in the "dormant period", nothing could be seen of plat work, so the articles dealt largely on the shade tree variety test under way here. It has been noticeable that since the El Paso paper printed the write-up, the number of local visitors to the station has greatly increased.

Maximum temperature 89, minimum 41; precipitation, 1.38 inches. Evaporation, 1.842 inches. Wind velocity, 5.9 miles per hour.

BIG SPRING:

Weather conditions have improved considerably during the past week. On the night of May 2 a slow rain fell netting 1.3 inches, then on the following night another rain of 0.9 inch was received. These two rains totaling 2.20 inches will give the farmers an opportunity to start planting next week, for the soil is soaked up in good shape now. This is the first good rain that this section has received since last September.

Station work during the week has consisted of disking an increase field and repairing roadways. The wheat plats were trimmed and the grape vines were tied to the trellises.

Maximum temperature 103, minimum 56; precipitation, 2.20 inches.

LAWTON:

Weather conditions have varied from a couple of days of clear skies with low wind velocity and warm temperatures to high winds from the south, and to threatening weather with cold winds from the north.

Small grain crops are again showing a critical need of moisture. Wheat is heading at a very short, uneven height. Fields throughout the county present a discouraging prospect at the present time. In the southeast part of the county rains have been a little more abundant and the crop is a little better than in the southwestern portion of the county.

Lawton, continued:

Early sown oats is also heading and the plants have made but little growth. A few fields of oats are being abandoned. Early sown oats on the station is in fairly good condition.

Judging from present indications and conditions, harvest of small grains with the binder will be a difficult job this year.

Six varieties of cotton planted April 16 emerged to good stands by April 28 to May 1. Broom corn and sorgo seeded on the rotation plats April 24 were up to a stand May 5. Germination of grain sorghums planted May 1 was slow and uneven but fairly good stands were recorded by May 1, except for Premo and Chiltex. Germination of these two varieties was almost a complete failure.

The second planting of grain sorghums was made May 1 as well as the forage sorghum variety test. Kafir and faterita on the rotation plats was planted May 2 and 3. Seed beds were good in nearly all instances and enough surface moisture was present for germination.

Cotton planting is in full progress on farms throughout the county at the present time.

Maximum temperature 83, minimum 40; precipitation, 0.05 inch.

WOODWARD:

The week was spent in disking orchard and vineyard, in planting grape and other cuttings, transplanting Ulmus parvifolia grown in the greenhouse over winter, pruning trees and trimming back shrubbery which flowers early in the spring.

Last fall a suggestion was followed of planting tulips a full foot deep in sandy soil. They came up in nice shape this spring. Bulbs are expected to remain healthier when planted deeply, as they are not affected so much by short droughts, intense heat, and light freezes.

A trial planting was made two years ago of about 100 varieties of Iris, and these have made clumps and will make a great show this year. So many varieties are very interesting, but there are not over fifteen of the hundred that are really superior. From clumps at Woodward distribution can be made to other stations within a year or two. The Iris is one of the hardiest of dry land ornamentals and requires little attention.

The light rains continue to keep the wheat in very promising condition.

Maximum temperature 86, minimum 43; precipitation, .70 inch.

Average hourly wind velocity, 10.5 miles. Evaporation, 1.696 inches.

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MAY 12 1928

REPORT FOR WEEK ENDING MAY 12, 1928.

HAVRE:

Temperatures during the first three days of the past week were considerably above the normal. Wind movement was also rather high, resulting in rather extreme drying of the soil. There was no rain recorded during the week.

Most of the spring grains are up with good stands and are making fair growth, although even a light rain would hasten this very materially. Domestic grasses seeded in 6-inch drills are beginning to suffer, as is also alfalfa. Row plantings of these crops are growing rapidly with no sign of suffering to date.

Aside from potatoes and flax, practically all of the seeding on the station is completed. Owing to the fact that the weeds continue to start, it seems about as well to delay seeding of flax until after a rain if this comes within the next two weeks.

Corn ground is already to plant and most of the fallowing on the plat field is done.

Reports continue to indicate a decided increase in the wheat acreage in this section. An increase in the price during the last two weeks undoubtedly stimulated this increase to a certain extent.

Maximum temperature 92, minimum 38; precipitation, 0.

JUDITH BASIN:

Favorable growing weather for all crops was experienced during the past week. Spring grains seeded two weeks ago are emerging with good stands. Grasses and alfalfa have made a pronounced growth during the warm weather. Trees are leafing out and there is a noticeable daily change.

Some sections in the northern part of the Basin reported wheat leaves turning yellow. An investigation showed that these fields were needing rain. Thick stands of winter wheat together with drying winds are causing this crop to show lack of moisture. Prospects for rain were more favorable during the last day of the week. No precipitation has been received in this section for more than three weeks. Most of the spring seeding in the Basin is completed.

All small grain crops in the experimental work is seeded. Forage crop seeding is also completed with the exception of corn and date of seeding experiments. Winter wheat on the fall plowing and subsoil plats was practically all winter killed. These plats were reseeded to Marquis. A large field of barley was seeded, also some oats. A field on delayed seeding for weed control will be seeded later. Most of the planting of potato tests are completed.

Maximum temperature 85, minimum 36; precipitation, 0.

HUNTLEY:

With few exceptions, the day and night temperatures during the past week have been unusually warm, and where moisture was available, all crops made a good growth. Winter rye in the pasture and green manure rotations is jointed and is greatly in need of rain to keep it growing.

The preparation of land for corn was completed early in the week and the crop was planted on the 9th. Fall plowed fallow plats, roads and alleys were cultivated, and land for the experiments with potatoes and beans was worked down.

Hogs for the Dry-Land pastures were selected and weighed up today and will be moved to the plats next week, when the final weighings will be taken.

Maximum temperature 92, minimum 34; precipitation, Trace.

SHERIDAN:

The weather continued dry throughout the week, with somewhat higher temperatures than the average for this time of the year and with high winds a large part of the time. The surface dried fast.

The remainder of the land intended for pastures was seeded during the week. Root crops and some rows of sweet clover also were seeded. A few odd pieces of land not used for plats are being seeded to barley today. All land for corn has been prepared for planting, and the remainder of the fall plowing has been cultivated with the duckfoot cultivator. Plats in the rotations also have been prepared for flax.

All small grain seeded prior to May 5 has emerged. Grain seeded as a nurse crop with grass emerged, but none of the alfalfa, sweet clover, or grasses have emerged except a part of the brome in Rotation 41. As the surface on a large part of the land has dried deeper than it seems advisable to seed the small seeds, these may not emerge without more moisture.

Soil samples were taken early in the week. On land cropped last year the soil was moist to a depth of two and one-half to three and one-half feet. Fallow was moist to the full depth sampled, 6 feet.

Maximum temperature 86, minimum 35; precipitation, 0.

DICKINSON:

Warm and dry weather continued through the week with temperatures well above normal on three days. Plant growth was rapid where plenty of water was available but grasses and the lawn are showing the need of water.

Dickinson, continued:

A shower would also benefit recently seeded grain and feed crops. Early grain looks well except that it is possibly a little spindling caused by rapid growth on the hot days.

The first blossoms opened in the plum orchard on May 8. This is 10 days earlier than in 1927 but a few days later than in 1926.

Land was prepared for corn on the rotations May 7-9 and the plats seeded May 10. Plowing of the north field where corn alternates with the cereal variety plats was started with the tractor on May 12.

Land was prepared for flax on the rotations but will not be seeded until after a shower. The flax varieties were seeded May 11.

A clipping test is being made of crested wheat grass, slender wheat grass and brome with cuttings at two-week intervals. The third cutting was made on May 10. Crested wheat grass was still well ahead of the other species in total growth at this date. Based on green material the yield of slender wheat grass was 47 pounds and brome 58 pounds for each 100 pounds of crested wheat grass. Dry weights are being secured and samples kept for analysis.

Maximum temperature 87, minimum 31; precipitation, .01 inch.

MANDAN:

Agronomy

The past week has been favorable for field work. Plowing continued throughout the week for corn and forage crops. The corn plats in the rotations have been plowed and are being harrowed today, in readiness for planting next week.

Small grain is growing well, but the surface soil is dry. Thistles are starting badly on many plats. A heavy wind is blowing today and is moving some dirt.

The total precipitation for April was .99 inch; from January 1 to May 1, 1.49 inches. The 50-year average for the same period is 3.55 inches. There has been no rain to date in May.

There is some concern among farmers because of the lack of rain. While the surface soil is very dry, the crops on the station are not in a serious condition, as the lower moisture is good at present. If rain does not come soon, crops will suffer before many days.

Mandan, continued:

Cooperative Grazing Experiment

Grass was rather slow in starting this spring, because of cold weather. Needle grass started growth by March 20, but was later retarded by cold. The two species of Carex started early in April, and were in bloom the latter part of the month. Many of the blossoms were caught by frost, so the seed crop will no doubt be light.

The pastures show a good deal of green grass at present. Unless good rains come soon, there is apt to be a short grass crop for pasture and hay.

The cattle are now in the reserve pasture. Fifty-eight steers arrived from the Agricultural College at Fargo on May 3. They were obtained throughout the winter in small lots from the packing plant. Another 15 head were delivered at the pasture on May 5. These were obtained locally. The cattle average at present around 700 pounds per head. They are a more uniform size than last year, but of poorer quality. It was harder to obtain steers for the grazing work this year than for some years past. The cattle were all branded with individual numbers on May 5. The steers will no doubt put on 30 to 40 pounds per head by the time they are turned on pasture.

Fences are being put in shape as rapidly as possible, and everything will be in readiness for the opening of the experiment next week.

Horticulture

Dry weather continues and rain is now needed to give trees and shrubs a good start. It now appears that there will be a considerable amount of winter injury, especially to young fruit trees. Many of the older trees have one or more branches that are not starting growth, but which may start later if moisture conditions are favorable. Sapa, Terry and Red Wing plums were severely injured. A number of apple trees also appear to be dead.

All apple and crab trees in the main orchards have been looked over and treated for blight if infected. It was necessary to severely cut a number of large Virginia crabs because of this disease.

Top-working in the main Virginia crab and Hibernal orchard has been in progress throughout the week. Northwestern Greening, Fameuse, Anisim, and Malinda, are being extensively used for top-working these trees.

Mandan, continued:

All orchards are now being cultivated with the duck-foot orchard cultivator.

Field crossing work has started, and a large number of plum blossoms have been emasculated.

The second planting of vegetables in the acre garden was done during the week. The early plantings are up and with cabbage, cauliflower and lettuce plants are doing fairly well, although showing signs of need of moisture.

The perennial flower beds on the grounds have been renovated and spaded over. The 2,500 Darwin tulips planted last fall have appeared with a 100% stand.

A number of Chinese elms were planted about the grounds during the week, taking the place of willows and other trees which have died out in the original groups and borders. The intense heat during the early part of the season brought the asparagus on with a rush. Cutting of sprouts was necessary every day for a while.

The lawns and various shrubbery groups are in very bad condition at present due to the dry fall and spring. If rain does not come within a few days it will be necessary to irrigate the main campus about the buildings to save the grass from drying out.

Arboriculture

Shipments of shelterbelt trees were completed on the 7th. The balance of the week has been spent in lining out Chinese elm seedlings and Northwest poplar cuttings.

BELLE FOURCHE:

The weather has continued hot and dry, but alfalfa and bromegrass are the only crops which show signs of suffering from lack of moisture. A high wind the last of the week caused considerable soil blowing and all grain plats were damaged to some extent, but the injury was not great enough in any instance to necessitate reseeding.

Winter rye has commenced to joint. Wheat and barley have made a fair growth, but oats have recovered very slowly from the effects of the wind storm the last of April and have remained practically stationary for the past two weeks. Flax seeded last week is coming up.

Bellefourche, continued:

Field work has been devoted chiefly to duckfooting and harrowing corn and sorghum plats, and planting corn. Scraping of wind drifted soil from the remainder of the fallow plats was also completed.

Visitors during the week were Mr. Stewart Lockwood, of the Bureau of Entomology, and Mr. John Kelso, of the Ardmore Field Station.
Maximum temperature 89, minimum 36; precipitation, 0.

ARDMORE:

The first part of the week was very hot and dry. The latter part of the week was cooler but the dry weather continued.

Field crops have commenced to show drought injury. Alfalfa stopped growth several days ago, and some of the grasses in the pastures curled badly. The alfalfa was from three to six inches in height when it stopped growth, and unless rain enough for a second cutting occurs the hay crop will be a total failure.

All of the corn in the rotation fields was planted during the week. The variety plats have not been planted.

The soil is very dry and mellow, and is in condition to promote blowing. A strong wind from the south has been blowing all day today, and some of the fall plowed land and fallow ground has commenced to move.

Breaking sod in the Tucker place was completed.
Maximum temperature 88, minimum 35; precipitation, Trace.

ARCHER:

The fore part of the week was favorable for field activities, but during the last half this work has been at a standstill due to the rain which started May 9 and continued through most of May 10. The total precipitation was 0.55 of an inch. The cool, cloudy weather which followed prevented rapid drying of the soil.

The seeding of all drilled crops on the Dry-Land plats except peas has been accomplished. About 20 acres of corn were seeded in the dairy field and part of the sod has been disked. Since the rain, yard and inside work has been in progress.

Saturday was spent pulling the well and repairing the pump.
Maximum temperature 79, minimum 34; precipitation 0.55 inch.

AKRON:

Weather was hot until Wednesday but has been cool and cloudy since with intermittent mist storms. Today it is cloudy but it seems no moisture can fall.

Winter wheat is showing the first appreciable growth of the spring. It is expected the winter killing is now over.

Stands of spring sown grains are satisfactory on fallow, on corn land, and on spring plowed small grain stubble land, but as yet very unsatisfactory on fall plowed small grain stubble land, particularly on the Rotation Project.

The plums in the fruit garden bloomed profusely, the blossom petals falling at this week end. Cherries are now in full bloom except the Homer variety. The cherries are showing about half the usual bloom cover. Apples, crab apples and pears are not blooming, there being but one to three bloom clusters on each tree.

The Cereal Project fallow land was plowed back and packed. All experimental alleys were cultivated. This week end the corn land is being made ready for seeding the first job next week. Some time was found for filling in the two lagoons on the plowed land of the station.

Persian lilac is in full, heavy bloom by this week end. Tulip bulbs among the shrubbery are also blooming by this week end. Generally speaking the trees among the border plantings are in about full leaf by this week end, but there has been but very little leafing-out activity among the forestry trees.

Maximum temperature 88, minimum 37; precipitation, .11 inch.

NORTH PLATTE:

The week started in with three very warm days of excellent growing weather. Since that time it has been unseasonably cool.

All grain crops, alfalfa and pastures have made good growth since the rains of a week ago.

Corn on the D. L. A. plats was planted yesterday, May 11. A two-row lister was used for the first time. This is somewhat more difficult to handle in narrow roadways but since it reduces the number of turns by half and greatly speeds up the work, its use will be continued.

Rye is coming into head.

HAYS:

Generally, the weather has been cool and pleasant. Rain occurred on Friday and Saturday, May 11 and 12.

The growth of winter wheat, where heaviest, has reduced the moisture content of the soil to a point where large cracks have opened up in the ground, but still there is sufficient moisture in the soil for good development although the growth has been retarded, which is desirable. The comparatively cool weather has been ideal. Wheat on early fall plowed and listed ground is from 18 to 24 inches high, plenty thick and heads about ready to come out. On fallowed ground the wheat is from four to six inches higher, some thicker and almost as far advanced. On early disked ground it is from four to six inches shorter and thinner than on the plowed ground, but even this is good wheat. Late disking is poor, both short and thin. Late fall plowing is poorer than the early fall plowing but better than the late disking.

Comparing wheat on ground prepared alike for this crop regardless of the method, the second crop after fallow looks much better than where the ground has been continuously cropped. This is especially noticeable on stubbled-in ground and on shallow worked ground.

It is interesting to note that on the uniform treatment plats, where the ground has been prepared uniformly for the 1927 and 1928 crop of winter wheat, there is a noticeable difference in the appearance of the wheat due to the work done in the fall of 1925 for the 1926 crop. This is only additional evidence that the tillage given the ground may influence the crop three years after the work is done.

What looks to be the poorest wheat on the project is where it was drilled with one-horse drill in the kafir stalks, the stalks having remained on the ground all winter to catch the snow (which did not fall). It so happened that there was not only much less than the usual amount of winter moisture, but there was no frost until late in the winter with the result that the kafir remained green until in December and used all the moisture there was in the soil, hence the wheat did not germinate until about spring. Second poorest is continuously stubbled-in, third poorest is kafir stubble and then corn stubble.

Spring small grains are 8 to 10 inches high and looking fine except for a very weedy condition on the continuously cropped plats. Even though the stand of grain is good, the weeds are so very thick it looks doubtful if the grain can survive and make even a fair yield.

Hays, continued:

New stands of both alfalfa and brome grass are very good and looking fine. Rye is about 3½ feet high, and about 50% headed. Peas are four to six inches and making nice growth.

Maximum temperature 89, minimum 43; precipitation, .36 inch.

COLBY:

Weather conditions remained favorable for field work during the week. The trimming of all plats to uniform size was accomplished the first of the week. Roads and alleys were then worked.

The necessary cultural treatment was given the different corn plats and all corn and pinto bean plats were seeded on the 11th. Corn varieties were seeded on the 12th. The commercial fields of corn will be seeded this coming week. With the moisture conditions that prevail in the seedbed at this time the corn should come up to good stands.

Several plots that will later be listed to milo were double disked during the week.

Drs. M. C. Sewell and Percy Gainey, of the Kansas Station, and Dr. Thom, of the U. S. D. A., visited the station and took samples of 25 plats to a depth of 3 feet to make total nitrogen studies on certain rotation and tillage plats on Thursday and Friday.

Three agriculture classes visited the station this week. The classes were from Hoxie, Herndon, and Colby High Schools.

Weather remains cool. A few showers that totaled one-fourth inch fell during the week.

GARDEN CITY:

Rather high temperatures were recorded the first three days of the week but since that time the sky has been cloudy most of the time. Rain started falling Thursday afternoon and up to eight o'clock Saturday morning 1.3 inches of moisture had been recorded. Prospects are favorable for more rain. The total rainfall to date for the month of May is 3.83 inches.

Field work during the week consisted of marking plat ends and cultivating some of last year's fallows.

Garden City, continued:

The writer just returned from a five hundred mile trip through the wheat belt of this State. For the most part wheat prospects are good. Wheat in McPherson, Reno, Harvey and Barton Counties has a good growth, but has a rather poor color. One of the most noticeable things on the whole trip was the large amount of rye that is showing up in the above mentioned counties. Fields were passed that showed as high as 15 per cent of rye. The rains recorded at the station were general over most of this section of the State.

Maximum temperature 93, minimum 43; precipitation, 1.3 inches.

DALHART:

Conditions have greatly improved in this section of the Panhandle since the last report. The weather has been about the correct degree of coolness for best crop growth and 2.30 inches of rain were recorded to 8:00 o'clock today. The rain was recorded as follows: .12, 1.06 and 1.12 inches in the past three days. These all fell in slow even showers which lasted nearly 24 hours so that nothing was wasted in runoff. The total rainfall recorded this month to date is above the average.

Considerable work in the field was accomplished this week. The field corn was planted, also the second date of cotton varieties and the peanut varieties. Everything is in readiness to plant the kafir on all rotations as soon as the fields will permit working. This will be several days and probably not before the end of next week. Some special work is being put in this spring, three lines being contemplated in addition to the regular work. Since the rains have been in progress the time has been spent in doing odd jobs inside, such as oiling the harness, clipping the work stock, trimming the feet of the work animals, making cross-arms for the telephone poles, etc.

The small grains are making excellent progress. The yields will be light for most of the plats where rye followed a row crop on account of poor stands. The spring sown oats and barley are making excellent headway.

The canyon was higher Friday of this week than it has been in 14 years. This was caused by unusually heavy rains toward the west. The water was running about six feet above the bridge about noon yesterday.

Maximum temperature 90, minimum 42; precipitation, 2.30 inches for the week, and 4.38 inches for the month to date.

TUCUMCARI:

Rain which began Thursday noon has continued almost continuously, although total precipitation in the 48 hours was only 1.04 inches. Everything is saturated and likely to remain this way until the cool, cloudy conditions change. Very possibly the May 15 date of planting will have to be delayed.

Early in the week good headway was made toward planting preparation; the center field rotation plats, north field cooperative plats, and grain forage sorghum variety plats requiring only a light cross-harrowing before planting. The north field plats were also practically ready for planting.

With the present delay in field work, it now appears evident preparation of land and planting will of necessity be of a rush nature, with increase land left until most plats are planted.

The recent rains have greatly pushed vegetative growth and the lawns, hedges, trees and vineyard never looked better. Weeds have made rapid progress, but have been held in check.

Maximum temperature 90, minimum 42; precipitation, 1.04 inches. Evaporation, 1.797 inches. Average hourly wind velocity, 6.2 miles.

BIG SPRING:

Weather conditions have been very favorable for field work during the past week until today, May 12. It started raining at one o'clock, and within a few minutes the station grounds were entirely under water. In less than an hour the rain gauge cylinder was running over. This rain together with the one of last week should soak the soil up sufficiently so that planting can be completed with plenty of moisture for seed germination.

Thousands of acres of cotton have been planted in this section during the past week, and it is probable that considerable of this will have to be replanted now. The soil will be packed so hard that emergence will be very difficult.

The station force has been busy during the entire week planting increase blocks of Sudan grass, milo kafir, and feterita, and in getting the plats ready for planting; the latter were disked, harrowed, and staked. The May 1 date of seeding was not made until May 7 as soil was too dry to plant at the regular date. Other work consisted of harrowing the orchard and cultivating and hoeing the vineyard.

Maximum temperature 93, minimum 52; precipitation, 2.37 inches.

LAWTON:

With the exception of a poignant need of rain, crop growing conditions were the most favorable the past week that have obtained for more than a month. Clear skies, low wind velocity, and moderate temperatures prevailed. Two days of threatening weather at the close of the week yielded only 0.11 inch precipitation at the station, but fairly heavy local showers fell throughout the county.

Oats with the exception of late seedings has been in full head for a week or more. The seed was treated with formaldehyde and the crop seems to be almost wholly free from smut so far. Wheat has been heading rather slowly but the majority of the heads are out of the boot except on poorly prepared seed beds.

Kafir and feterita planted on the rotation plats May 3 and 4 emerged on the 11th. The cotton and cowpea plats were planted May 8 and 11, respectively. Grain sorghum, forage sorghum, and cotton projects planted May 1 emerged May 9.

The first cutting of alfalfa on the increase fields is a failure. The rowed plat of alfalfa in rotation 142 will make a light yield of hay. Growth of the two year old sweet clover in the seeding project has been almost negligible for some time.

Maximum temperature 94, minimum 49; precipitation, 0.11 inch.

WOODWARD:

Due to light rains of last week and hot weather following weed seed germinated freely, and a concentrated effort was made to get over as much of the farm as possible with the springtooth and disk. Corn was cultivated, second date-of-cotton was planted, and about two thousand Ulmus parvifolia were transplanted from the greenhouse. Some hoeing and pruning of ornamental shrubs was accomplished. With .70 inch of rain on May 2-3 and with 1.61 inches on the 10-11th and rain falling steadily as this report is written, prospects for a heavy yield of wheat are very bright. Due to favorable conditions coming so late it is probable that straw will be short.

Maximum temperature 95, minimum 47; precipitation, 1.61 inches. Evaporation, 1.864 inches. Average hourly wind velocity, 6.7 miles.

JUN 6 1928
PLANT INDUSTRY

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 19 1928

REPORT FOR WEEK ENDING MAY 19, 1928.

HAVRE:

Conditions were quite favorable for farming operations during the past week. We have had only one rain and that less than one-quarter of an inch this spring, so the ground is quite dry for the rapid growth of grasses. Grains seeded on fallow are growing in pretty good shape. On the poorer methods, however, they are making very little growth. Domestic grasses on 6-inch drills are badly checked at present. Three foot rows of grasses and alfalfa are still growing in good shape.

All of the fallow was completed on the rotations last week. Corn on the rotations is being seeded today. Some of the commercial fields of corn are in. Flax on the rotations has not been seeded and will not be until there is rain. It will be necessary to clean the flax seed bed before seeding.

Seeding of wheat in the county is practically done. Many farmers have fields that are ready and will seed if there is rain, otherwise this land will be fallowed this year.

Maximum temperature 77, minimum 38; precipitation, 0.

JUDITH BASIN:

Favorable growing weather for most of the crops has prevailed during the past week. Two light showers have refreshed conditions but a good rain is needed to improve the germination for spring grains on poor methods. More moisture would also be beneficial to the winter wheat crop which is not thriving in some sections of the Basin. The dry conditions following unfavorable winter weather is being reflected in the backward development of this crop.

Alfalfa and the grasses have made a pronounced growth. Sweet clover is not so far advanced but is making a favorable growth.

Seeding of increase grain fields was completed. Most of the potato experiments have been planted and further seeding on the annual forage crops is also finished. Early tillage for the preparation of summer fallow was made. Trees grown from native poplar and returned to us from the Mandan Station were received and set out.

The grasses and sweet clover had made sufficient growth for commencing of the pasture experiments on the 16th. Cows and heifers were placed on crested wheat grass, brome grass and sweet clover blocks.

Visitors during the week included the agricultural class from the Benchland schools and Louis Vinke, of the Montana Experiment Station.

Maximum temperature 72, minimum 37; precipitation, .36 inch.

HUNTLEY:

Rainfall amounting to .58 inch occurred on the evening of the 12th. This shower is, with the exception of .07 inch received April 28, the first measurable precipitation that has been received since April 20. As most of the past week has been cloudy with a few light showers, crops have been able to make sufficient use of the rain that has fallen. Spring grains have taken on a better color and stands have increased somewhat on plats where germination was uneven due to dry seed beds. Winter rye in the green manure rotations is now fully headed out at a height of 13 inches and is beginning to burn.

Hogs were placed on the Dry-Land pastures early in the week. The alfalfa pastures have made a good growth this spring and there is an abundance of forage now available on these plats. Brome grass has not come along as rapidly as usual and unless we get more rain soon the grazing season will be short on the grass pastures. Winter rye, the first of the annual crop pastures, has made a very rapid growth during the past week and it may require clipping to keep it from getting too coarse for palatable forage.

The only field work done on the Dry-Land project during the week was planting potato varieties and further cultivation of land for beans and sorgo.

Maximum temperature 78, minimum 43; precipitation, .68 inch.

SHERIDAN:

Rain the first of the week prevented further field work until Thursday. This rain put the soil in good moisture condition again, and growth of all vegetation has been fast since.

Land for corn was harrowed again after the rain and the rotations were planted yesterday, the 18th. The middle of May seeding of spring grain was seeded, and listed corn outside the rotations is being planted today.

Maximum temperature 75, minimum 40; precipitation, 1.42 inches.

DICKINSON:

An inch of rain, which fell on the 14th to the 16th, greatly improved the condition of all crops. This fell slowly and was followed by cloudy weather, so that little was lost. Warm weather during and following the rain caused rapid growth of all plants.

Dickinson, continued:

The condition of crops is fully as good as at this date in 1927 but there is less water in the soil.

Flax, millet, alfalfa and sweet clover were planted on the rotations on May 18.

Corn varieties were planted on May 18. The corn nursery and a field for silage were planted on the 19th.

Potato varieties were planted on the 18th and two plats of Cobblers on the rotations on the 19th. A seed treatment test remains to be planted.

Maximum temperature 77, minimum 39; precipitation, 1.03 inches.

MANDAN:

Agronomy

Light rains during the week delayed field work on parts of two days.

Corn was planted in the rotations on May 18. A three-acre field was listed in for feed, and the corn varieties and seed blocks are being planted today.

Alfalfa varieties for the Office of Forage Crop Investigations were seeded during the week. Potatoes were planted in the rotations on the 17th.

Alleys were given the first cultivation. Thistles are starting badly in many plats in the roadways.

Several days during the week it looked like rain, but only a little fell. Good rains have been reported all around this area. Brome grass, crested wheat grass, alfalfa, and sweet clover are all badly in need of rain. Crested wheat grass shows signs of drying up in the drilled plats.

Maximum temperature 77, minimum 45; precipitation, .23 inch.

Cooperative Grazing Experiment

The cattle were weighed in and started on the various pastures during the week. The weight of the steers was about 730 pounds per head.

Mandan, continued:

Pastures are in fair condition, but not nearly as good as last year at the same period. The chances are now good that there will be short native pasture and hay crop this year. The native grasses are dependent on spring rains for a crop. Sweet clover is in very good condition for grazing, and a good stand was obtained. It will be grazed at the rate of one steer to two acres.

Arboriculture

Spring planting in the shelterbelt nursery is nearing completion. 60,000 cuttings of Northwest poplar, and several thousand seedlings of Scotch, Jack and Norway pine, Black Hills and Colorado blue spruce, have been lined out. On account of the scant rainfall during the past month, it was necessary to irrigate before planting the conifer seedlings.

BELLEFOURCHE:

The spring drought was finally terminated May 13 and 14 by a slow, drizzling rain which totaled .76 inch precipitation. Crop prospects were further brightened by another good rain of .74 inch precipitation on May 18. The moisture was received at a very opportune time for all crops, particularly alfalfa and brome grass which were on the verge of burning. All small grain and hay crops have made a marked improvement since the first rain. Oats, which have been quite backward since the wind storm the last of April, are now making a rapid, vigorous growth. Corn seeded last week is well sprouted, and alfalfa is coming up.

Plowing of summer fallow, trimming of all plats, duckfooting of roadways, and reseeding of brome grass and sweet clover were completed during the week. The second set of soil samples were also taken.
Maximum temperature 76, minimum 47; precipitation, 1.51 inches.

ARDMORE:

Rain fell every day of the last week except Monday, but the amounts were so small that field work was halted on only two days.

Small grains are in good condition and making seasonable growth. Winter rye is in the boot. The rye will be short unless a considerable amount of rain falls soon.

Ardmore, continued:

Prairie grasses are in much better condition since the rains during the last two weeks. The quantity of rain has not been sufficiently large to cause the alfalfa to resume growth. Unless rainfall from now on is unusually heavy, there will be no alfalfa hay this year.

Field work during the week consisted of planting corn varieties, harrowing corn plats and fields, trimming plats, and disking roads.

Thirty-five local ranchers were at the farm to witness the final weighing of the steers at the end of the winter feeding test. Short talks were given by Dr. S. S. Buckley, of the Bureau of Animal Industry, Mr. W. H. Hauser, Livestock Extension Specialist for South Dakota, and the station superintendent.

Maximum temperature 72, minimum 44; precipitation, .77 inch.

ARCHER:

Very little field work has been accomplished this week. The cool, humid weather with .98 of an inch of precipitation distributed over three days, two days during the first of the week and a shower of .21 of an inch on Friday, prevented field operations. However, such work as repairing and changing fences, cleaning yards and planting trees has been in progress.

Spring wheat on the Dry-Land plats is up. The first seeding of sunflowers in the general field and 34 acres of barley in the general fields are also up. Winter rye is jointing. Winter wheat suffered quite considerably from soil blowing during the last half of April. However, it is showing up well now. The stand of wheat on plats seeded with the common drill is very thin.

Some of the plums and apples are in bloom and a heavy crop of gooseberries is seeting on.

Maximum temperature 58, minimum 36; precipitation, .98 inch.

AKRON:

A most welcome rain has been received each day the past week. The fore part of the week was cloudy and the rains fell slowly as drizzles. The latter part of the week the forenoons were warm and clear with a late afternoon shower. Even these later showers fell slowly so that there has been prectically no run-off from the series of rains totaling 2.07 inches.

Akron, continued:

It has been impossible to do most types of field work. However, conditions were ideal for breaking out 10 acres of sod land across the railroad. The north, or the clipped portions, of the two pasture fields across the railroad were also reseeded to scarified sweet clover seed. The rotation corn plats were staked and made ready for seeding. The corn planter was calibrated for the Akron Yellow corn preparatory to seeding the rate and spacing corn experiment.

One lot of ewes and lambs was turned on the rye field of sheep rotation farm 51 today. The rye is breaking into head at about knee high, and is very thin on the ground.

The apple and cherry trees have been in full bloom during the past ten days of damp, cloudy weather, during which time it has been practically impossible for insects to work. The cherries produced almost if not quite full bloom cover but the apple and crab apple trees bloomed most sparingly. Plums have apparently set a good fruit crop.

Trees among the border plantings and in the Forestry Experiment are rapidly breaking into leaf.

Winter wheat has made nice growth during the week, but corn land plats are so lacking in growth that the weed problem promises to be acute. Rye is breaking into head not more than 26 inches in height even on fallowed land.

The season is so late that it is expected an acute weed problem will develop with the advent again of warm, clear weather.

Mr. E. J. Maynard visited the station early in the week in the interest of the sheep rotations work.

Maximum temperature 70, minimum 39; precipitation, 1.96 inches.

NORTH PLATTE:

Three days of rain at the beginning of the week added another two inches to the May rainfall, bringing the total for the month, to date, up to 3.40 inches. It has been too wet for field work until today.

Much corn remains to be planted in this part of the State. Early plantings on the station have emerged.

Grain crops, alfalfa and pastures are making record growth.

COLBY:

Weather conditions remained unfavorable for field work throughout the week. Rain started falling on Sunday morning, May 13, and continued to fall for 24 hours in a light drizzle at that time. Several showers have fallen since then. The total amount of precipitation that has fallen since the first of May has been 4.01 inches. There has been but very little runoff from any of the showers that have fallen. The ground is well supplied with moisture in the surface two feet.

The only field work attempted was the plowing of three plats of rye for green manure. It was a little too wet for the plowing of these plats and it was necessary to plow them on two separate days as a rain came up when plowing them. Farm field work is necessarily delayed. It is planned to plow the summer tilled plats the first of the week if weather permits. Commercial planting of corn will also be completed the coming week if weather permits.

Winter wheat on the station could hardly present a better appearance on the summer tilled plats at the present time. Winter wheat should start showing heads within the next week.

Corn planted the previous week has not emerged. Germination has occurred and emergence should take place before the ground is hard crusted. It is not thought that the ground will crust much except in a few ends of the lister furrows where a small amount of water has stood following the last rain.

Weather has remained cool and cloudy when it was not raining during the past week.

GARDEN CITY:

The past week has been a rainy one as a measurable amount of rain was received on five days. Four inches of rain have been received since the 10th. The total rainfall for May is now 6.61 inches. The highest recorded rainfall for the month of May was 6.69 inches received in May of 1923. Most of the moisture received so far came slowly and most of it has penetrated the soil.

Winter wheat has made a very rapid growth and is now more than knee high. Some of it is near the boot stage. Late planted wheat is still small, but seems to be taking advantage of the favorable moisture conditions. The spring small grains are also making a rapid growth.

Garden City, continued:

No field work was accomplished during the week because of the rain. If no more rain is received it is hoped that the first date of planting sorghums may be made Monday, May 21.

Maximum temperature 74, minimum 44; precipitation, 4.0 inches.

DALHART:

Two days of field work was accomplished this week. The remainder of the time was too wet. Climatic conditions have been very favorable over this section. Nearly three and one-half inches of rain were recorded during the past two weeks, all of which soaked away, since there was no runoff from the fields. The past few days have been quite warm so that the fields have dried rapidly.

During the days when the fields were too wet to work, odd jobs were taken care of. Since the fields have dried sufficiently to work, a great deal has been accomplished. The plats were prepared for planting and the first date of grain and forage sorghums was planted on the 18th, just three days behind schedule. Today, the 19th, the cotton varieties were planted, consisting of 19 varieties, including the 3rd date. The kafir plats on the rotations are in preparation for planting. This planting will be made the first of the week if weather conditions permit.

The corn and first date of cotton are just beginning to emerge. The soil has been quite cool since the rain, which has delayed germination. It will be necessary to put out poison for rodents around the peanut planting. This will be done today, as the ground squirrels are digging the peanuts out and eating them.

Maximum temperature 75, minimum 41; precipitation, 1.16 inches.

Rainfall since May 1, 5.44 inches.

TUCUMCARI:

The past week has been characterized by cool, cloudy, calm days with rather frequent showers, resulting in unusually low evaporation. Good progress has been made in preparing plats and increase land for planting. The M. C. series of sorgo, kafir and corn was planted yesterday, while between showers the middle of the week the first date of grain and forage sorghums was planted.

Sweet clover seeded on six dates from November 15 to April 15 is up to excellent stand, while the early dates have plants two to three inches tall. Six acres increase sweet clover, also drilled on cane stubble, is making good headway.

Tucumcari, continued:

Preparation of land and corn planting is progressing rapidly throughout this locality and farm and range conditions are very favorable, except in those plains neighborhoods which received too little moisture to bring wheat through the winter.

Precipitation this month totals 2.95 inches, compared with a 22-year average for the entire month of May of 2.16 inches. Going back to October 1, however, there is quite a marked deficiency.

Maximum temperature 81, minimum 42; precipitation, .53 inch.
Evaporation, 1.112 inches. Average hourly wind velocity, 4.1 miles.

BIG SPRING:

The past week has been one of practically continuous rainy weather with the result that no field work whatever has been accomplished during this time. It started raining May 12, as reported in the last news letter; a total of 4.20 inches was recorded May 13, 1.04 inches on the 14th, 1.40 inches on the 17th, and 1.20 inches on the 19th. This makes a total for the week of 7.85 inches, which, added to that of the previous week, totals 10.06 inches for the first 19 days of May. This is the highest rainfall ever recorded for the month of May during the past twenty-eight years or since records have been kept in Big Spring.

The fields washed considerably and the roads around the station grounds never have washed so badly before.

The winter wheat plats, which had almost been given up as failures, are now making a good growth and give promise of making some wheat. An increase block of Sudan grass has emerged to a good stand, and a block of milo and kafir is trying to come up; the seed is now covered so deep that it is rather doubtful whether it will make it or not. The April 15 date of seeding of cotton and sorghums has emerged to fairly good stands, but the May 1 and 15 dates are covered so deep that they will probably not emerge.

The work during the past week has consisted mainly of grinding feed, fixing roads, and getting seed in shape to plant just as soon as the weather will permit.

Maximum temperature 81, minimum 55; precipitation, 7.85 inches.

LAWTON:

Precipitation during the past week of cool, cloudy weather totaled 2.60 inches from May 12 to 17, inclusive. One rain of 1.26 inches falling within an hour on the 17th resulted in a heavy per cent of runoff and considerable erosion.

Lawton, continued:

Press reports indicate that the rains were quite general throughout the State. in the southwestern part the creeks and rivers reached flood stage, seriously interfering with traffic on the highways.

The ground is thoroughly soaked and row crops that are either coming up or are just big enough to cultivate should do well. Early seeded oats are well headed and some grain is beginning to turn. Present moisture conditions will likely permit fairly good yields except on late seeded fields where the stand is poor and plant growth was retarded throughout the the spring.

Although wheat yields will be spotted and generally light the present condition is considerably improved. In most cases the straw will be short and the heads as a rule are small.

Cotton emerged unevenly but good stands are finally resulting with the improved moisture conditions.

The May 15 planting projects of grain sorghums and forage sorghums and cotton were made on the 16th.

Rye on Rotation 390 was plowed under for green manure May 16. The crop attained a height of 24 inches.

Weeds are rapidly starting growth and field work will be urgent as soon as the ground is dry enough for tillage.

Some replanting on kafir and feterita plats will be necessary because of erosion from the rain on the 17th.

Maximum temperature 80, minimum 55.

WOODWARD:

Rain has fallen every day for the past nine days with a total of 5.10 inches for the period and 5.80 inches for May to date. Until the last inch of rain fell there was little erosion and very little runoff, the soil drinking it all in as it came. It seems as though winter wheat which is now headed should fill well, but a heavy yield is not expected, because of a thin stand. Wheat did not root deeply until late in the spring and many plants died during the winter.

Due to continued rains, farm work has consisted chiefly of repairing roads, making fence and hoeing weeds. On this sandy soil hoeing at least can be done an hour after rain stops falling, and a day of wind and sunshine permits most kinds of field work.

Maximum temperature 79, minimum 46; precipitation, 3.49 inches.

Average hourly wind velocity, 6.0 miles. Evaporation, .961 inch.

NOTE:

Professor E. C. Chilcott is leaving Washington May 27, 1928, for the new Central Great Plains Field Station, Cheyenne, Wyoming.

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BUREAU OF
PLANT INDUSTRY

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 20 19

REPORT FOR WEEK ENDING MAY 26, 1928.

HAVRE:

The weather during the past week has continued similar to that of the last month, being dry and unusually warm for this season. A maximum of 96 on the 23rd broke the high temperature record for May for the last 50 years.

Aside from winter rye that is in on stubble, none of the grains have suffered to a noticeable extent. Winter rye headed during the week and on fallow is showing a very vigorous growth. Spring rye and winter wheat are both looking very good on fallow. Some of the winter wheat on fall plowing is thin and weeds have started a rather heavy growth.

Corn seeded a little over a week ago is coming up on fallow and fall plowing. That on spring plowing will be rather thin until more rain is received.

The drought seems to have been broken this morning with a shower of .18 inch. This has freshened up all crops and will be of special value to native grasses which have made very little growth. This is not enough rain, however, to germinate late seeded grains.

Irrigated alfalfa has made an unusually heavy growth this year. It is now nearly a foot high.

All fruit trees have bloomed profusely and the set of fruit is heavy. Canker worms are again causing a lot of damage in the shelterbelt.
Maximum temperature 95, minimum 38; precipitation, .18 inch.
Average maximum, 88; average minimum, 52.

JUDITH BASIN:

The dry weather continued with some wind and unseasonably high temperatures. This sapped the moisture rapidly from all fields during the past week. All crops need more moisture for normal development. The winter wheat has withstood a combination of unfavorable conditions and is not in the most vigorous condition to withstand continuous drought. Fields on poor methods seeded early in August are showing lack of moisture. Fields planted early in September on good summer fallow ground are still thriving but would make additional improvement with more moisture.

A trip into the North Central counties showed similar conditions with additional winter killing in the Chinook belt near the mountains. In Pondera County alfalfa fields winter killed. Practically one-third of the acreage killed out.

Judith Basin, continued:

Spring sown crops have emerged with good stands on the better cropping methods. Uneven stands and weedy conditions are noticeable on the poorer methods and particularly in the flax rotations. Spring seeded alfalfa and sweet clover are in need of moisture on all experiments.

Grasses are showing a noticeable lack of moisture in the pasture experiments. Alfalfa and sweet clover will soon be in the same condition. Trees in the shelterbelt and orchard are thriving. Spring planted trees are not having favorable growing weather. Some newly planted shelterbelts in this region will do well to survive present conditions.

Work at the station has progressed in good shape with roads being duckfooted and the shelterbelt and the orchard being cultivated. Corn was planted on the rotations and variety tests. Seeding of miscellaneous crops was completed. Plowing for fallow was completed on the rotations, cereal and forage experiments.

A good portion of the first summer fallowing operations has been completed on the farms in this region.

Visitors during the week included Mr. Fred Bennion, State County Agent Leader, and Mr. L. D. Kurtz, Extension Agronomist.

Maximum temperature 88, minimum 37; precipitation, 0.

HUNTLEY:

The past week has been hot and dry. The moisture received in the showers of a week ago was quickly used up and crops are again wilting from drought. Alfalfa has ceased growing and is beginning to turn yellow. Winter wheat is firing badly and spring grains have made but little progress. Corn has come up in nearly all plats but the stand is very uneven.

Field work during the week has consisted for the most part in the eradication of weeds which continue to thrive in spite of the dry weather. Roads, alleys and fallow plats were again cultivated; fence rows were graded out with tractor and road grader to level off the drifted soil and destroy weeds that could not be reached by other machinery; and some hoeing has been done. Field beans, sorgos, soy beans, and a series of grass varieties were planted.

Maximum temperature 92, minimum 38; precipitation, 0.

SHERIDAN:

The week was warm and dry. All vegetagion made a fair growth, but alfalfa began to show some wilting from the warm weather toward the end of the week. Corn in the rotations had emerged this morning, May 26.

The roadways were staked and marked for lining the ends of the plats, and a part of the roads were lined with the plow today. The varieties of corn and a seed block of Falconer corn, and the potatoes were planted early in the week. Deadwood was trimmed out of the orchard and is being trimmed out of the shelterbelt. There was considerable winterkilling of fruit trees and also some killing back of Chinese elm again this year.

Maximum temperature 88, minimum 40; precipitation, 0.

MANDAN:

Agronomy

Another week has passed without rain. The week has been favorable for field work, but not for crops. Small grains are still in good condition, but growth has been retarded. Several days have been very warm and there was one day with hot winds.

Corn planting was completed early in the week and the second seeding of alfalfa and sweet clover in the Forage Crop rotations was made.

The 15 acres of plowless fallow in the feed field was started by disking.

Roadways have been lined up and plats are being trimmed today, May 26.

Bromegrass, crested wheat grass, alfalfa, and sweet clover are making very slow growth, and are badly in need of rain. Some of the bromegrass is dried up now.

A great deal of corn has been planted over this area by lising, a method but slightly used before this spring.

The total precipitation from January 1 to May 1 is 1.49 inches, as compared with the 50-year average of 3.55 inches. The total for May to date is .25 inch, which is the lightest on record since the station started.

Maximum temperature 95, minimum 39; precipitation, 0.

Mandan, continued:

Cooperative Grazing Experiment

The cattle appear to be doing well, but the grass is short in some of the smaller pastures. The chances for a good grass crop are past for this season, even with heavy rains in June.

Clipped quadrats cut during the week show the total growth to be much less than usual at this time of the year.

The sweet clover pasture is in good condition for grazing. A good stand was obtained from the seeding made in the spring of 1927.

Horticulture

The continued dry weather has been very hard on most trees and shrubs. Winter injury, or more properly speaking, spring drought injury, has been unusually severe. Many fruit trees, small fruit bushes, and ornamental trees and shrubs have failed to start growth wholly or in part. It is common to see part of a tree in full leaf and the rest apparently dead.

There has been no killing frost during the blooming period, and the weather has been ideal for cross pollinating purposes, so a good set of fruit is expected.. Most of the older plums and apples bloomed heavily this year.

Potatoes in the variety trials and spacing experiment were planted during the week.

The final planting of seeds and plants in the acre garden has been made. Germination of previous plantings is very low and irregular, due to lack of surface moisture.

The planting of the sweet corn selections in the breeding project was completed on May 22. About 400 ear rows were planted.

It was found necessary to irrigate the lawns about the buildings during the week. The grass was becoming so burned it cracked under foot. The 2,500 Darwin tulips planted last fall came through in fine shape, and are making an excellent display of bloom at the present time.

Other work during the week included irrigating the nursery, top-working the Hibernal and Virginia crab orchard, suckering buds in the nursery, and cultivating gardens and orchards.

Mandan, continued:

Arboriculture

Spring planting in the shelterbelt nursery is now completed, and cultivation and hoeing started. Germination of tree seed has been slow this year, probably on account of the lack of rain.

BELLEFOURCHE:

Clear, warm weather has prevailed throughout the week, and but very little wind movement has taken place. Aside from a light shower on May 19, no precipitation was received.

The warm weather following the rains of the previous week has been very favorable to plant growth, and all crops have made rapid advancement. Oats, barley, and spring wheat are beginning to joint. Corn, alfalfa, and sweet clover are up.

Work in the field has been devoted to harrowing fallow plats, cultivating alleyways, weeding, and planting potatoes.

Mr. S. S. Buckley, of the Animal Husbandry Division, visited the station during the week.

Maximum temperature 88, minimum 37; precipitation, .18 inch.

ARDMORE:

The weather during the week has been warm and dry. A shower of .19 inch fell on May 19 benefiting small grain somewhat.

Corn emerged in the rotation plats and all surface planted fields during the week. All corn plats and fields were harrowed early in the week. Winter rye on the green manure rotations is heading. The millet and sorgo land was cultivated with the duck-foot and harrowed today.

The repairing to the large dam in the reserve pasture was started Friday.

The steers from the wintering experiment were divided and placed on pasture Tuesday. The numbers and average weights of steers on pasture are as follows:

150 acre pasture, 10 head, 758.5 lbs.
80 acre pasture, 10 head, 761.5 lbs.
160 acre rotations pasture, 16 head, 758.3 lbs.
300 acre reserve pasture, 4 head, 625.0 lbs.

Ardmore, continued:

Total gains per head made by the steers on winter feeding experiments are as follows:

Straw lot	48.5 lbs.
Alfalfa lot	72.0 lbs.
Silage lot	171.5 lbs.
Wheat grass lot	71.5 lbs.

Maximum temperature 89, minimum 31; precipitation, .19 inch.

ARCHER:

During the past week the weather has been wet and rather cool. Precipitation amounting to 1.24 inches occurred on four different days and it is raining this afternoon. During the week only one and one-half days permitted of field work. During this time the potatoes were planted and corn planting in the general field continued.

Due to weeds, the corn, potato and bean plats were reduckfooted. Preparations were made for reseeding the flax plats. The land to be used for the varietal experiments has been reduckfooted. This work was necessary because of delayed seeding and weed growth due to wet weather.

During the wet weather the remainder of the trees were planted and machinery repaired. Manure hauling and cleaning of yards progressed and before the fields were in a condition to work the garden was seeded and the trees around the farmstead cultivated.

The apple and plum trees are in full bloom and all trees except the ash and elm are in leaf.

The dairyman's house is being remodeled.

Director W. L. Quayle and Fiscal Agent E. O. Fuller, of the University of Wyoming, were station visitors during the afternoon of May 19.

Maximum temperature 75, minimum 41; precipitation, 1.24 inches.

AKRON:

The week has been warm and clear. Field work was resumed as soon as the ground became firm after the rains. The rotation fallow plats were plowed and packed a few days earlier than the average date. Weeds were vigorous and a disking or plowing was necessary. The ground turned a little too wet for best scouring of the plow but was left in good tilth.

Akron, continued:

The rate and spacing corn experiment was seeded Wednesday forenoon. The rotation corn plats and the sheep rotation corn fields were seeded Wednesday and Thursday. The rotation sorghum plats were seeded Thursday. The corn variety experiment was seeded Friday and Saturday.

The rotation and the cereal project roadways were cultivated. The orchards were given their first general cultivation. Akron White corn was increased on land which grew corn last year. Coes sorgo was increased on fallow.

Winter wheat has made nice progress since the rains but the ground cover is thin and the height of the plants uneven. The winter wheat varieties on corn land and certain of the thin rotation winter wheat plats were spike tooth harrowed to kill germinating weeds.

Spring grains are making progress but myriads of weeds are promising to offer real competition. Spring grain stands on fall plowed plats are very unsatisfactory. Rye is in full head. Rotation rye plats are very thin and the grain has headed very short.

Trees and shrubs are in full leaf. Cherry trees are still blooming; the longest blooming period noted in recent years. Plums have set a good crop of fruit.

Maximum temperature 82, minimum 34; precipitation, 0.

NORTH PLATTE:

The week has been dry and warm. No rain has fallen. All crops have made excellent growth.

Teams have been kept busy finishing corn planting and preparing ground for sorghums. Corn on the D. L. A. plats is up with good stands.

Visitors during the week have included several high school delegations, and President Crane, of Wyoming University.

COLBY:

Weather conditions remained fine for field work during the week. Field work accomplished during the week consisted in the planting of 392 rows of selfed and cross-pollenized corn, the finishing of the planting of the commercial corn, planting of isolation areas to corn, plowing of the balance of the summer tilled plats, packing of the summer tilled plats and the plowing and packing of summer tilled field for winter wheat

Colby, continued:

varieties, listing of one field for summer tillage, and the listing of one-half of another field for summer tillage which compares with plowing for summer tillage and with corn spacing where the following crop is winter wheat. The final tillage was given several surface planted plats that go into sorghums.

Corn is up to a thick stand that will permit of uniform thinning. This is true of all plats except the ends of two listed plats where it will be necessary to replant. These plats will be planted with the hoe the first of the week. After a week of rainy weather the ground crusted over very hard to a depth of almost two inches in places.

Winter wheat continues to look fine. This year the experimental fields of winter wheat on the station appear to very much greater advantage than do the D.L.A. plats of winter wheat. It is hard to account for all of this difference. Some is due to the fact that it was not planted at the same time while the rest of the difference is unaccounted for.

Spring seeded cereals appear to good advantage. Spring wheat is very thick while barley is some thinner and oats are thinner than barley.

A small amount of ground remains to be worked for summer tillage. As soon as the summer tillage is completed it is planned to start seeding sorghums.

No rain of any consequence fell during the week. The evaporation remained low.

Winter wheat is heading and some of the earlier barleys are heading. There are no dry leaves on the wheat or spring cereals.

GARDEN CITY:

With only two light showers and plenty of sunshine, growing conditions have been ideal during the past week. The small grains have made a very rapid growth since the recent rains. Winter wheat on the better methods of fallow is now fully headed.

The first date of planting of sorghums was made Monday, and a few of the varieties are emerging.

Field work consisted of plowing under rye for green manure, listing plats that are to be fallowed this season and trimming plat ends.
Maximum temperature 87, minimum 44; precipitation, .23 inch.

DALHART:

The past week has been moderately warm, partly cloudy and generally favorable. There was one small shower recorded which netted .06 inch precipitation. Several times during the week a storm has threatened, but each time it passed on.

Field operations have been in full swing all week. Final preparation for planting was made on all rotation kafir plats, also Sudan and Mexican bean plats. These were planted on the 20th. The cotton block was prepared and planted to the date-variety cotton test on the 20th. In this planting there were 19 varieties, Acala No. 5 being used as a check after each 5 varieties. The remaining rotation plats were disked to kill the young weed growth, as was the alternate Cereal-Forage block. No further plantings will be made until the 1st. The Vineyard, orchard and tree plantings were disked. The peanut varieties and field corn were harrowed to break the crust and drag out young weeds. This operation left the plats in good shape. Some hoeing was done during the week.

The grain and forage sorghums in the first date emerged from the 25th to 26th, to good stands. The three dates of cotton are emerging at this writing. The first two dates of cotton are slower in emerging than the last. Some of the cotton seed was dug up several days ago and found to be rotten. It was thought at the time that it had lain too long in the cold, wet ground. Apparently the thick rate of seeding is sufficient to make a fair to good stand in spite of the two weeks of cool rains. These are still emerging.

Winter wheat and rye are heading. Prospects are pretty good for both of these crops although the stands of rye are very poor on all plats which follow row crops. The wheat is looking good and showing up in proportion to the method except for the fallow plat. Wheat on this plat does not look as if it would make as much yield as the early plowed plat. The stand is good on all plats considering the prevailing conditions from planting until the first of May. Oats and barley are making good headway and bid fair for a good yield. These have not begun to joint as yet but have stooled out in good shape.

The grape varieties are just about ready to bloom. The prospects are better this year than at any time since the vineyard was started. With reasonably favorable conditions, all varieties should make a high yield. Prospects for other fruit are scarce. The cherries which survived the freezes have been further thinned out by a hail which occurred last week, but was overlooked in the report. The hail did very little damage as the stones were small. They fell pretty thick for a while, however, and knocked a good many cherries off the trees.

HAYS:

The temperature during the week has ranged between 35 and 86 degrees, for the most part being moderate to cool. There was no heavy wind and no rain although there was some cloudiness. In spite of the fact that the ground is getting pretty well dried out on plats where there is a heavy growth of grain, the wheat has continued good development under the favorable temperatures. It ranges in height from 12 to 18 inches on some of the poorer plats to 36 inches on some of the better plats and from about 30% stand to 110%. On most of the plats it is 90% headed, the exception being some late prepared plats where perhaps not more than 35% is headed. However, there are not many plats so poor as this. As a whole, the prospects have never been better at this time of year, taking all things into consideration, except in 1924. There are possibilities (with one more rain and cool weather) of some 40 to 50 bushel yields. There will also be some 5 to 10 bushel yields. It should be stated that the ground is getting very dry where the growth is heavy and should it turn dry and hot, no doubt the prospects for 40 bushel wheat would shrink to half that amount, because the moisture in reserve is being rapidly exhausted.

Oat and barley crops are heading at from 12 to 24 inches in height. For the most part these crops are pretty good, but not as good as winter wheat. On the continuously cropped plats there are a good many weeds, most of them being wild buckwheat.

Spring wheat has made a good growth, being from 12 to 18 inches high, but not yet heading.

Winter rye made a good growth and has been plowed under for green manure. Peas are about 12 inches high and are looking fine. Brome and alfalfa plats seeded this spring show fine stands and these plats are unusually free of weeds.

Corn and sorghums were seeded during the week. The corn would have been planted during the previous week but for rains and wet ground. Soil conditions for planting of these crops was almost as nearly ideal as could be. All was moist and warm, and all was fine except those plats upon which no work had been done previous to planting.

Alfalfa, one or more years old, is just commencing to bloom.

TUCUMCARI:

The week has been unusually cool, cloudy and calm, with rain threatening nearly every day. Satisfactory progress was made in planting and preparation for planting.

Tucumcari, continued:

All north field rotation plats, cotton date and variety plats, peanut variety test, and some increase land were planted, while nearly all land remaining to be planted was worked with field cultivator or spring tooth harrow.

M. C. corn, kafir and sorgo plats planted eight days ago have emerged to good stands, while excellent emergence was made by all variety sorghum plats planted May 16. Some rows of early planted cotton are still deficient in stand.

Some time was spent in cleaning tree rows, orchard, vineyard and lawns. Yesterday, May 25, about 75 bankers, holding an annual convention in Tucumcari, visited the station.

Precipitation of 3.13 inches this month to date, compared with an average of 2.16 inches for May, and a total for the year of 5.63 inches, compared with an average total of 5.40 inches to the close of May, has resulted in the station presenting an unusually attractive appearance. Many evergreens which made but little growth the past two years have responded greatly, while deciduous trees are looking better than usual, with the exception of the old black locusts, many of which are dying.

Maximum temperature 82, minimum 49; precipitation, .18 inch.
Evaporation, 1.361 inches. Average hourly wind velocity, 2.8 miles.

BIG SPRING:

Weather conditions have been very favorable for field work during the past week. Work has been rushed to the limit of the station teams since the fields have dried off enough to get on to them. There was a period of ten days when the fields were too wet to work, during which time the weeds did not fail to grow.

The fallow plats were plowed May 22, and the following day two planters were started; they have been kept busy during the remainder of the week. During this time all of the dry land project with the exception of one bean plat, two millet and three feterita plats, were planted. Grain sorghum varieties, cotton varieties, and the cotton spacing plats were also planted during this time.

Maximum temperature 95, minimum 64; precipitation, .04 inch.

LAWTON:

Cool nights with a minimum temperature of 48 degrees recorded on two dates constituted the only handicap to crop growth throughout most of the local territory the past week. Crop growth has made a nice response to the favorable factors of soil moisture, low wind velocity, clear skies, and moderate maximum temperatures.

Lawton, continued:

A destructive hail storm devastated crops, damaged farm buildings and injured and killed some livestock in the eastern part of the county, May 20. In some instances crops were totally destroyed, while in others the damage was fifty per cent or less. In Commanche County the center of the storm area was about four miles wide and ten to twelve miles long.

Field work on the station during the week included cultivation of row crops, replanting the cowpea rotation plats, thinning the April 15 planting of grain sorghums and corn on the rotation plats, cultivation of orchard and tree blocks and shrubs, and mowing of fence lines and grass areas around the buildings.

Seventy-four varieties and strains of soybeans were planted May 21, and many of them are emerging at the present time.

Practically all of the sweet clover varieties are in bloom. On the rotation plats a fairly good second year growth has been made but growth on the two-year old seeding project is quite uneven and generally quite short.

The respective yields of hay on rowed and drilled alfalfa on Rotation 205 were 450 and 250 pounds per acre. On the rough places on the station where alfalfa is grown for feed, the first cutting was an entire failure.

Winter barley on Rotation 196 will be ready for harvest within two or three days. In the variety and the date of seeding tests, where stands are very thin, maturity is not so far advanced.

Oats is ripening rather unevenly but it is likely that one or two rotation plats will be harvested within a week.

Corn on the M.C. A, B, E, and H plats is growing rapidly but growth is slow on fallow and listing.

Maximum temperature 88, minimum 48; precipitation, .03 inch.

WOODWARD:

Preceding this week there were eleven days of rainy weather when practically no field work could be accomplished. This week there has been no rain since Sunday night, so an effort has been made to make up for lost time. Nearly the entire farm has been covered with plow, disk or spring-tooth, and is in excellent condition for planting. Planting, however, will not be rushed unduly, as soil is still cold.

Woodward, continued:

In spite of the cold weather a good stand of cotton has been secured on early plantings. This success is ascribed largely to treating seed with copper carbonate, which kills mold and allows seed its full vitality to start growing on

Recent surveys of fruit prospects over the country indicate that more damage was done by repeated frosts than was estimated heretofore. Peaches are practically all gone, cherries will make a very light crop, and even apples will not yield heavily. Only a few varieties of grapes on the station were injured and other varieties are set with an unusually heavy crop. Prospects are good for an average crop. The yield of grapes seems to vary but little with seasons, though quality varies markedly.

Prospects for a good wheat crop are even better than they have been previously.

Maximum temperature 86, minimum 46; precipitation, .13 inch.
Evaporation, 1.689 inches. Average hourly wind velocity, 4.0 miles.